

[Name of documents]

Specification

[Title of the invention]

CM Auto-Scorer

[Claim]

[Claim 1] A CM Auto-Scorer providing an excitor for a bowler's bowling result which combines an advertisement of a sponsor on monitor screen which displays bowling results and score in a bowling center.

[Claim2] A CM Auto-Scorer providing an excitor for a bowler's bowling result which combines an advertisement of a sponsor on monitor screen which displays bowling results and score in a bowling center, and automatically displays if a bowler goes beyond a given standard having means of automatic judgment by frequency of exciters, by types of exciters, and/or by displayed frames.

[Claim3] A CM Auto-Scorer providing an excitor for a bowler's bowling result by non-animated, video recorded motion picture and sound of an actual person on monitor screen which displays bowling results and score in a bowling center.

[Claim4] A CM Auto-Scorer providing an excitor for a bowler's bowling result by a non-animated, video recorded actual person's motion picture and sound on monitor screen which displays bowling results and score in a bowling center, and automatically displays if a bowler goes beyond a given standard having means of automatic judgment by frequency of exciters, by types of exciters, and/or by displayed frames.

[Detail description of the invention]

[0001]

[technical field]

This invention relates to a CM Auto-Scorer, which provides an excitor for a bowler's bowling result combining an advertisement and sales promotion of a sponsor by non-animated, video recorded motion picture and sound of an actual person on monitor screen which displays bowling results and score in a bowling center, and automatically displays if a bowler goes beyond a given standard having means of automatic judgment by frequency of exciters, by types of exciters, and by displayed frames.

[0002]

[related art]

A bowling automatic scoring system so far comprised consoles for each lanes; and a host computer connected to consoles, having means for detecting bowling results on each lane, having means for data communication between consoles and a host computer, having means for displaying the bowling results by an animated exciters, and having means for displaying the score.

Also there was a bowling automatic scoring system displaying roulette and offers a prize

according to a number of the roulette after displaying the excitor of strike.

[0003]

[Background of the invention and related art statement]

A bowling automatic scoring system so far had defects as described below.

A) A bowling automatic scoring system so far provided an excitor just for the display of strike or spare by animated graphics for the bowling result, and the excitor itself did not have any commercial value.

B) A bowling automatic scoring system so far did not have means for displaying an excitor of a non-animated, video recorded actual person. And the use of the excitor was limited only to display bowling results.

C) Therefore, one excitor by animated graphics was used for years in a bowling center, and it did not attract bowlers.

D) Also there was a bowling automatic scoring system having means for displaying roulette and offers a prize according to a number of the roulette after displaying the excitor of strike, but it was a roulette game with luck after strike and it was different from a sport of bowling which competes technical skills.

[0004]

[Means to solve the defects]

To solve the defects described above, this invention has means for displaying an excitor of non-animated, video recorded real person for a bowler's bowling result, having means for displaying a commercial excitor by advertisement video of a sponsor, and having means of automatic judgment if a bowler goes beyond a given standard by frequency of excitors, by types of excitors, and/or by displayed frames.

[0005]

[Operational description]

This invention sends bowling data of commercial type, name of bowlers, and other data for a bowling game as handicaps to a console and an overhead monitor above each lane of bowlers.

After bowling data was sent to a console and an overhead monitor, commercial film is televised on the overhead monitor as a title scene for "Game Start", and then bowling game is started by the bowler.

Various video recorded motion pictures are displayed for each bowling results.

Those various video recorded motion picture are commercial excitors for advertisement presented by sponsors, and the various video excitors are to display advertisements together with the bowling results.

When a bowling game is over, score is displayed, and also automatically judged and

displayed if a bowler goes beyond a given standard by frequency of excitors, by types of excitors, and/or by displayed frames .

Lastly, commercial film with a name of a sponsor is televised on the overhead monitor as an ending scene for the game, and the bowling game is finished.

The result of the game is printed by CM Auto-Scorer, and handed out to the bowler.

[0006]

[Detailed description of the preferred embodiments]

In Fig.1, bowling data as name of bowlers, handicaps, and game types are input into Main MCT 6 which controls CM Auto-Scorer, and those data are sent to Scorer 4 via Arch-net 5.

Types of commercial excitor and commands for their display are also input into Main MCT 6 and they are sent to Picture Display Host 8 via Arch-net 7.

Picture Display Host 8 is a server which is to send requirement from Scorer 4 to Picture Display Computer 12 for each lane.

Data is sent to Picture Display Host 8 and transferred to Picture Display Computer 12 via Ethernet 9.

Picture Display Computer 12 is set up for every 2 lanes to send pictures of commercial excitor to each lane and it keeps the pictures of commercial excitor in memory.

The pictures of commercial excitor sent from Picture Display Computer 12 are switched from picture signals such as juke picture or video picture by Multi Selector 11 manually or automatically, and are sent to Overhead Display 1 via Composite 10, and are displayed on Overhead Display 1.

Overhead Display 1 is a monitor TV which is set above each lane to display score, commercial excitor, juke picture, or video picture.

[0007]

When the picture of commercial excitor is sent to Overhead Display 1, a title scene of commercial excitor is displayed, and a command is sent from Scorer 4 via TTL 3 after the title scene to switch from Composite 10 to RGB 2.

When switched to RGB 2, a picture for score is displayed on Overhead Display 1 by communication for score display via RGB 2.

A bowler starts bowling game after the picture for score is displayed.

Data of the bowler's first bowling result is sent from Scorer 4 to Main MCT 6, and as the same way mentioned above, requirement from Scorer 4 is sent to Picture Display Host 8 and to Picture Display Computer 12, then a picture of commercial excitor is selected by Picture Display Computer 12, and displayed on Overhead Display 1.

Again, a command is sent from Scorer 4 via TTL 3 to switch from Composite 10 to RGB

2. After switched to RGB 2, a picture for score is displayed on Overhead Display 1 by communication for score display via RGB 2. And the communication is repeated in the same way every time when the bowler bowls.

[0008]

(1) The case of using a commercial excitor featuring a group of 10 characters, for example, is described as follows.

Bowling data such as a type of commercial excitor, name of bowlers, or handicaps, are sent from CM Auto-Scorer to a monitor TV on console and a monitor TV above the lane when bowlers are ready to start their game.

(2) After the data is sent, a group of 10 characters appears on the monitor TV as an opening title picture and declares Game Start with advertising goods of a sponsor. And a game of Bowling is started.

The 10 characters, a ~ j for example, are displayed upon the result of bowling. The result of bowling is detected by a scanner.

Strike	• • • • •	a or b
Spare	• • • • •	c, d or e
Miss without points	•	f or g
Miss with points	• • •	h or i
Split	• • • • •	j

They appear with advertising goods every time. Applause strike or spare and comfort when a bowler missed.

[0009]

(3) Not only score is displayed when the game is over, but also automatic judgment is done if a bowler goes beyond a given standard such as appearance of all the characters, frequency of a to e who appeared by strike or spare, characters who appeared on prescribed frames, or number of appeared characters.

Given standards, for example, are as follows,

- A) Appearance of all the 10 characters
- B) More than three times appearance of a, b, c, d, or e.
- C) Appearance of a on 7th frame.
- D) If all the bowlers succeeded to appear a, b, c, d, or e on 3rd, 6th, or 9th frame

Bowlers are to go beyond one of these four given standards. The photographs of 10 characters are displayed above the score as drawn in Fig.2 while bowling game and appeared characters are erased.

When somebody from a to e appeared by strike or spare, red mark is displayed as drawn in Fig. 3.

When the game is over, automatic judgment is done if each bowler goes beyond one of four given standards mentioned above.

(4) Once again, a group of 10 characters appears on the monitor TV and declares Game Over with advertising goods of a sponsor after displaying the judgment.

Even beginners are able to go beyond the given standard without games limit.

The result is printed by CM Auto-Scorer, and given to the bowlers.

The goods displayed also as sales promotion with the group of characters are given to the bowlers if the judgment goes beyond the given standard.

[0010]

[Effect]

This invention added commercial value to bowling excitor and it became possible to display various exciters presented by sponsor companies.

Bowlers can enjoy new types of game by variable excitor, and bowl with the aim of getting prize goods of sales promotion.

As for sponsor companies, it can be a very effective media for advertising.

If the commercial excitor appears 10 times in a game in a bowling center with 30 lanes and lineage of 30 games as a typical bowling center in Japan, it appears 270,000 times in a month.

$$10 \text{ times} \times 30 \text{ games} \times 30 \text{ lanes} \times 30 \text{ days} = 270,000 \text{ times}$$

And it can be a low costed and effective media for advertising by guaranteed viewership via a big overhead monitor above each lane in front of bowlers.

Also as for the management of bowling centers, various commercial exciters are presented by sponsors without cost, and not only getting profit by advertising rates, bowling sales increase will be expected by the popularity of the characters and by the goods for sales promotion.

[Brief description of the drawings]

[Fig.1]

Drawing of a preferred embodiment of CM Auto-Scorer

[Fig.2]

Drawing of a concrete condition showing the picture for score with photographs of characters from a to j.

[Fig.3]

Drawing of concrete conditions showing the picture for score with red marks for strike or spare.

[Description of marks]

1 Overhead Display

- 2 RGB
- 3 TTL
- 4 Scorer
- 5 Arch-net
- 6 Main MCT
- 7 Arch-net
- 8 Picture Display Host
- 9 Ethernet
- 10 Composite
- 11 Multi Selector
- 12 Picture Display Computer